

## REMARKS

In the present application, claims 1-22, 24-25 and 27-28 are pending. Claims 20-22 are withdrawn. Claims 1-19, 24-25 and 27-28 are rejected.

### Claim Rejection - 35 USC § 103 (a)

Claims 1-11, 16-19, 24-25 and 27-28 are rejected under 35 USC § 103 (a) as being unpatentable over Takamoto, et al. (U.S. Pat. No. 5,903,724), herein Takamoto, in view of Crisler, et al. (U.S. Pat. No. 5,515,379), herein Crisler, and in further view of Rodriguez, et al. (U.S. Pat. No. 6,986,156), herein Rodriguez. The Applicants include the following comments to clearly distinguish the claimed invention over the art cited by the Examiner, and respectfully request a favorable reconsideration of claims 1-11, 16-19, 24-25 and 27-28.

These rejections are respectfully disagreed with, and are traversed below.

It is well established law that in order for an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a prima facie case for obviousness. Thus, as interpreted by the Courts, the Patent Office must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that in accordance with *In re Lee*, the prior art must contain a suggestion, teaching, or motivation for one of ordinary skill in the art to modify a reference or combine references; and that the proposed modification must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made.<sup>1</sup>

Regarding claim 1, which recites:

“A method of doing business over a network, comprising:  
receiving a request for transmitting digital information, the request comprising an identification of a user and transmission constraints including a start time after which transmission may begin and an end time by which transmission should be completed, the digital information corresponding to a number of packets;

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<sup>1</sup> *In Re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Agmen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996); *In Re Sang Su Lee*, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

**determining an estimated time required to transmit** the digital information **based** at least on the number of packets and a **network speed**;  
scheduling a transmit time for the digital information;  
determining a cost for transmitting the digital information **based** at least on the **transmission constraints**, the **estimated time required to transmit**, and the transmit time;  
accepting the digital information for transmission only if the estimated time required to transmit is less than or equal to a difference between the transmit time and the end time and if the determined cost is less than or equal to a maximum cost associated with the user; and  
in response to the digital information being accepted for transmission, transmitting the digital information using the network after the start time and prior to the end time, and billing the determined cost to an account associated with the user” (emphasis added).

The Examiner has asserted that Takamoto does “not teach the steps of: receiving, determining, scheduling, and accepting with specific conditions”. The Applicants agree with the Examiner on this statement.

The Examiner has asserted that Crisler teaches “determining an estimated time required to transmit the digital information based on the number of packets and a network speed; scheduling a transmit time for the digital information (figures 2-3; column 4 lines 26-57; and column 5 line 44 to column 6 line 7)”. The Applicants assert that the Examiner has misinterpreted the teachings of Crisler.

Consider the disclosure of Crisler:

“When a large amount of data needs to be sent (i.e., an amount of data which cannot entirely fit in the first packet), the first packet **contains a request for allocation of n-time slots**. For this case, the first packet includes the **number of time slots (n) required to transmit the entire quantity of data** and an identification code of the requesting communication unit” (col. 3, line 62 – col. 4, line 1, emphasis added).

“Upon receiving the first packet, the time slot allocator determines **whether the first packet contains a request for n-time slots 201**. When the first packet does not contain the request for n-time slots, the time slot allocator processes the first packet based on a predetermined processing procedure 202. In this case, as detailed above, the first packet contains a single data packet. Therefore, the time slot allocator utilizes a predetermined processing procedure, such as extracting and decoding the data contained in the first packet, to process the received first packet. In addition, depending on the content of the extracted and decoded data, the time slot allocator may further process the data by relaying the data to another location.

“When the **first packet contains the request for n-time slots**, the time slot allocator **determines whether the n-time slots are presently available 203**” (col. 4, lines 16-31, emphasis added).

“For example, at the inception of a voice transmission, the communication unit does not know the quantity of information to be sent during the voice transmission. Thus, the communication unit **cannot accurately determine the number of time slots needed** for the voice transmission and, accordingly, sends a request to transmit multiple packets to the time slot allocator” (col. 5, lines 24-31, emphasis added).

“Upon receiving the first packet, the time slot allocator determines whether the first packet contains a request to transmit multiple packets 301. When the first packet does not contain the request to transmit multiple packets, the time slot allocator processes the first packet based on the predetermined processing procedure 202. When the first packet **contains the request to transmit multiple packets**, the time slot allocator determines whether the request can be presently accommodated 303. When the request can be presently accommodated, the time slot allocator allocates time slots to the communication unit such that the time slots are substantially contiguous in time 204.

“Upon allocation of the contiguous time slots, the communication unit begins transmitting information in the allocated time slots 305. The transmitted information generally comprises data or voice communications and other necessary information, such as error coding or addressing. While the communication unit is transmitting its information, the time slot allocator **monitors the transmission to determine whether the communication unit has finished transmitting 306**. While the communication unit is still transmitting, the time slot allocator continues to allocate contiguous time slots to the communication unit 204. When the communication unit has completed its transmission, the time slot allocator de-allocates any additional time slots previously allocated to the communication unit and the logic flow ceases at the END block. To indicate the end of the multiple packet transmission, the communication unit preferably transmits a data word as part of the last time slot's information to notify the time slot allocator of the transmission's conclusion” (col. 5, line 44 – col. 6, line 7, emphasis added).

While Crisler describes the use of a “number of time slots (n) required to transmit the entire quantity of data” there is no discussion as to how that number of time slots is determined. A word search of Crisler reveals no instances of “network speed” or “speed”.

Additionally, Crisler describes a method where there is no determination of the number of time slots needed. In this method, “the time slot allocator monitors the transmission to determine whether the communication unit has finished transmitting 306”. Clearly, there is

no determination made of “an estimated time required to transmit the digital information”, let alone of one “based at least on the number of packets and a network speed”

Clearly, Crisler does not disclose or suggest “determining an estimated time required to transmit the digital information based at least on the number of packets and a network speed” as in claim 1.

The Examiner asserts that “Neither Takamoto et al nor Crisler et al teaches that determining a cost for transmitting the digital information based at least on the transmission constraints, the estimated time required to transmit, and the transmit time”. The Applicants agree with the Examiner on this statement.

The Examiner asserts that Rodriguez teaches “determining a cost for transmitting the digital information (VOD service) (figure 4; and column 12 lines 28-60)”. Assuming arguendo that the Examiner is correct, this does not disclose or suggest “determining a cost for transmitting the digital information **based at least on the transmission constraints, the estimated time required to transmit, and the transmit time**”.

Consider the disclosure of Rodriguez:

“The billing system 127 communicates with the VOD application server 115 and the network manager 121 to calculate and process subscriber fee information. Information pertaining to fees associated with respective VOD services or other services may be stored locally in the memory 112 of the DHCT 14 and displayed for subscriber viewing via the presentation of a graphical user interface. The billing system 127 may also communicate directly with bandwidth allocation manager 125 to provide adaptive billing information” (col. 13, lines 38-47).

There does not appear to be a discussion in Rodriguez where the cost is “based at least on the transmission constraints, the estimated time required to transmit, and the transmit time”. Rodriguez does describe:

“the Cable Operator may assess a **fee** per time usage of the auxiliary channel bandwidth in much the same way as telephone companies **charge** for long distance telephone usage. Consequently, the subscriber consumes bandwidth for on-demand random access functionality fully aware that he/she is incurring a **cost** associated with the time that random access functionality is utilized or according to some other parameter” (col. 21, lines 38-46, emphasis added).

Rodriguez does not disclose or suggest what the “other parameter” might be. Clearly, Rodriguez does not disclose or suggest that the “cost for transmitting the digital information” is “based at least on the transmission constraints, the estimated time required to transmit, and the transmit time” as in claim 1.

As stated by the Examiner Takamoto does “not teach the steps of: receiving, determining, scheduling, and accepting with specific conditions”. Likewise, Crisler does not disclose or suggest “determining an estimated time required to transmit the digital information based at least on the number of packets and a network speed”. Furthermore, Rodriguez is not suggested as disclosing or suggesting “determining an estimated time required to transmit the digital information based at least on the number of packets and a network speed”. As neither Takamoto, Crisler, nor Rodriguez disclose this element, then the combination (which the Applicants do not assert there is a motivation or teaching to combine) of Takamoto, Crisler, and Rodriguez, herein Takamoto-Crisler-Rodriguez, does not disclose or suggest “determining an estimated time required to transmit the digital information based at least on the number of packets and a network speed” as in claim 1.

As stated by the Examiner “Neither Takamoto et al nor Crisler et al teaches that determining a cost for transmitting the digital information based at least on the transmission constraints, the estimated time required to transmit, and the transmit time”. Likewise, Rodriguez is not suggested as disclosing or suggesting “determining a cost for transmitting the digital information based at least on the transmission constraints, the estimated time required to transmit, and the transmit time”. As neither Takamoto, Crisler, nor Rodriguez disclose this element, then Takamoto-Crisler-Rodriguez does not disclose or suggest “determining a cost for transmitting the digital information based at least on the transmission constraints, the estimated time required to transmit, and the transmit time” as in claim 1.

Takamoto-Crisler-Rodriguez does not disclose or suggest all elements of claim 1. For at least this reason claim 1 is in a condition for allowance.

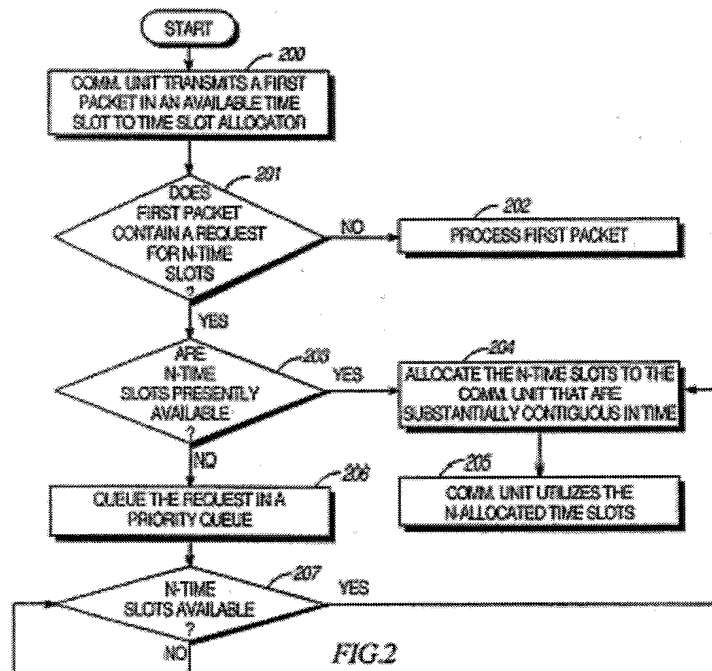
As all of claims 2-11, 16-19, 24-25 and 27-28 depend upon claim 1, they are likewise in

condition for allowance. However, in order to fully address the Examiner's rejections regarding dependent claims 2-11, 16-19, 24-25 and 27-28, the Applicants submit the comments below.

Regarding claim 3, which states:

“A method, as in claim 1, where the digital information is **rejected for transmission** if the estimated time required to transmit is more than the difference between the transmit time and the end time or if the determined cost is greater than the maximum cost” (emphasis added).

The Examiner asserts that Crisler teaches “the digital information is rejected for transmission if the estimated time required to transmit is more than the difference between the transmit time and the end time (figures 2-3; column 4 lines 29-57; and column 5, lines 44-55)”. Consider Fig. 2 of Crisler:



This figure shows only two end condition, step 202 and step 205. Rather than rejecting a transmission, the method disclosed, in step 203, will “queue the request in a priority queue”. Once N-time slots are available (step 207), the unit allocates the N-time slots (step 204) and the time slots are utilized (step 205). Likewise Fig. 3 has the end conditions of step 202 and

after step 306 "Comm. Unit Done Transmitting".

Consider further the disclosure of Crisler:

"When the n-time slots **are not presently available** 203, the time slot allocator queues the n-time slot request in a priority queue 206. Generally, the time slot allocator allocates the requested number of time slots to the highest priority time slot requests as the time slots become available. Priority may be determined according to the type of packet, such as high priority given to protocol control packets, or via an explicit priority parameter contained in the n-time slot request. Upon servicing the high priority requests, the queuing of the remaining time slot requests may follow a predetermined queue discipline, such as a first-in, first-out (FIFO) procedure. While the communication unit's time slot request is in the priority queue, the time slot allocator continues to monitor time slot availability 207. When the n-time slots become available, the time slot allocator allocates the n-time slots to the communication unit such that the n-time slots are substantially contiguous in time 204" (col. 4, line 58 - col. 5, line 7, emphasis added).

Clearly, Crisler does not disclose or suggest "the digital information is **rejected for transmission** if the estimated time required to transmit is more than the difference between the transmit time and the end time or if the determined cost is greater than the maximum cost" as in claim 3.

As stated by the Examiner Takamoto does "not teach the steps of: receiving, determining, scheduling, and accepting with specific conditions". Likewise, Crisler does not disclose or suggest "the digital information is rejected for transmission if the estimated time required to transmit is more than the difference between the transmit time and the end time or if the determined cost is greater than the maximum cost". Furthermore, Rodriguez is not suggested as disclosing or suggesting "the digital information is rejected for transmission if the estimated time required to transmit is more than the difference between the transmit time and the end time or if the determined cost is greater than the maximum cost". As neither Takamoto, Crisler, nor Rodriguez disclose this element, then Takamoto-Crisler-Rodriguez does not disclose or suggest "the digital information is rejected for transmission if the estimated time required to transmit is more than the difference between the transmit time and the end time or if the determined cost is greater than the maximum cost" as in claim 3. Thus claim 3, for at least this reason, is in a condition for allowance.

As claims 4 and 5 depend upon claim 3, they are likewise in condition for allowance.

However, in order to fully address the Examiner's rejections regarding dependent claims 4 and 5, the Applicants submit the comments below.

Regarding claim 4, which recites:

“A method, as in claim 3, further comprising determining a **second network** having a suitable second cost determined to allow transmission of the digital information over the second network, accepting the digital information for transmission over the second network at the second cost, and wherein billing the determined cost further comprises billing the second determined cost to the account” (emphasis added).

The Examiner asserts that Rodriguez discloses “allow transmission of the digital information over the second network”. In support for this statement, the Examiner refers to a number of places in the disclosure where Rodriguez discusses using multiple channels. However, Rodriguez discloses:

“The OOB **channels** provide the two-way operation of **the network**, which allows a subscriber interactivity with the services provided by the **network**” (col. 8, lines 19-21, emphasis added).

Clearly, channels are not the same as networks. Furthermore, Rodriguez describes “the network” implying one network. Thus, Rodriguez does not disclose or suggest “determining a second network having a suitable second cost determined to allow transmission of the digital information over the second network, accepting the digital information for transmission over the second network at the second cost, and wherein billing the determined cost further comprises billing the second determined cost to the account” as in claim 4.

As neither Takamoto, Crisler, nor Rodriguez disclose this element, then Takamoto-Crisler-Rodriguez does not disclosing or suggesting “determining a second network having a suitable second cost determined to allow transmission of the digital information over the second network, accepting the digital information for transmission over the second network at the second cost, and wherein billing the determined cost further comprises billing the second determined cost to the account” as in claim 4. Thus claim 4, for at least this reason, is in a condition for allowance.

Claims 12-15 are rejected under 35 USC § 103 (a) as being unpatentable over Takamoto



in view of Crisler in further view of Rodriguez and in further view of Duquesnois, et al. (U.S. Pat. No. 6,564,382), herein Duquesnois. The Applicants include the following comments to clearly distinguish the claimed invention over the art cited by the Examiner, and respectfully request a favorable reconsideration of claims 12-15.

These rejections are respectfully disagreed with, and are traversed below.

Regarding claim 12, which recites:

“A method, as in claim 1, where the **request** has one or more priorities”  
(emphasis added).

As discussed above Takamoto-Crisler-Rodriguez does not disclose or suggest “determining an estimated time required to transmit the digital information based at least on the number of packets and a network speed” as in claim 1. Furthermore, Takamoto-Crisler-Rodriguez does not disclose or suggest “determining a cost for transmitting the digital information based at least on the transmission constraints, the estimated time required to transmit, and the transmit time” as in claim 1.

Duquesnois is not suggested as remedying these deficiencies in Takamoto-Crisler-Rodriguez. As Duquesnois does not disclose or suggest “determining an estimated time required to transmit the digital information based at least on the number of packets and a network speed” or “determining a cost for transmitting the digital information based at least on the transmission constraints, the estimated time required to transmit, and the transmit time” as in claim 1, then the combination of Takamoto-Crisler-Rodriguez and Duquesnois, herein Takamoto-Crisler-Rodriguez-Duquesnois, does not disclose or suggest these elements.

Takamoto-Crisler-Rodriguez-Duquesnois does not disclose or suggest all elements of claim 12. For at least this reason claim 12 is in a condition for allowance.

As all of claims 13-15 depend upon claim 12, they are likewise in condition for allowance. However, in order to fully address the Examiner’s rejections regarding dependent claims 13-15, the Applicants submit the comments below.

Regarding claims 14 and 15; claim 14 recites:

“A method, as in claim 13, where the time period is any one or more of the following: **over night, two days, and one week**” (emphasis added); and

claim 15 recites:

“A method, as in claim 12, where the priority is a **freight priority** that requires the digital information to be transmitted within a **freight time** period with no acknowledgments” (emphasis added).

The Examiner asserts that Duquesnois discloses “that the time period in any one or more of the following: overnight, two days, and one week, and the priority is a freight priority that requires the digital information to be transmitted within a freight time period with no acknowledgement (see abstract; column 2 lines 1-14 and 38-59; column 4 lines 44-52; and column 9 lines 5-21)”. The Applicants assert that the Examiner has misinterpreted the disclosure of Duquesnois.

Duquesnois does not disclose or suggest ‘overnight’, ‘night’, ‘day’, ‘week’, ‘freight’, or ‘acknowledgement’. In fact, a word search of Duquesnois for these terms does not reveal any instances of these terms. Clearly, Duquesnois does not disclose or suggest “where the time period is any one or more of the following: over night, two days, and one week” as in claim 14 or “where the priority is a freight priority that requires the digital information to be transmitted within a freight time period with no acknowledgments” as in claim 15.

As neither Takamoto, Crisler, Rodriguez, nor Duquesnois disclose these elements, then Takamoto-Crisler-Rodriguez-Duquesnois does not disclosing or suggesting “where the time period is any one or more of the following: over night, two days, and one week” as in claim 14 or “where the priority is a freight priority that requires the digital information to be transmitted within a freight time period with no acknowledgments” as in claim 15.. Thus claims 14 and 15, for at least this reason, is in a condition for allowance.

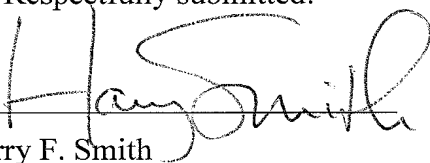
In light of the discussion above, the Applicants respectfully assert that a prima facie case for obviousness was not presented as required by the court in *In re Lee*. As such, the Applicants respectfully request that the Examiner reconsider and withdraw these rejections to claims 1-22, 24-25 and 27-28.

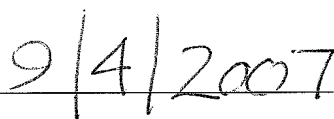
**Claim Rejection – Non-Statutory Double Patenting**

Appended hereto is a terminal disclaimer that should render the Examiner's rejection moot.

For the foregoing reasons, the Applicants believe that each and every issue raised by the Examiner has been adequately addressed and that this application is in a condition for allowance. As such, early and favorable action is respectfully solicited.

Respectfully submitted:

  
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